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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,822	06/14/2001	Arzhan I. Kinzhalin	SUNMP013	7759
25920	7590	10/20/2005	EXAMINER	
MARTINE PENILLA & GENCARELLA, LLP 710 LAKEWAY DRIVE SUITE 200 SUNNYVALE, CA 94085			LEROUX, ETIENNE PIERRE	
			ART UNIT	PAPER NUMBER
			2161	

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/881,822	Applicant(s) KINZHALIN ET AL.	
	Examiner Etienne P LeRoux	Art Unit 2161	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8 and 21-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8 and 21-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>8/2005</u> . | 6) <input type="checkbox"/> Other: _____                                    |

*Continued Examination Under 37 CFR 1.114*

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/1/2005 has been entered.

*Claims Status*

Claims 1-7, 9-20 have been canceled. Claims 8 and 21-31 are rejected in this office action as detailed below.

*Specification*

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Claim 1 recites “a code segment that binds each of the testable assertions to one of a plurality of tests that test the testable assertion.” The specification does not contain a detailed description of the manner and process of creating “a code segment that binds” such that a skilled artisan would be able to make and the use the claimed invention. The most explicit description in the specification of the present invention is the following:

Detail Description Paragraph:

[0032] The specification tracking of the embodiments of the present invention bind a

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specification assertion to the test that tests that specification assertion. After that binding is done a plurality of benefits is gained. First, upon each change in the specification assertion, the corresponding set of TCK tests can be tracked. This helps the test developer to identify a set of the tests that should be revised as soon as new specification version is available.

The above paragraph states that “binding” is done but does not even vaguely mention the process by which such binding occurs. It is totally unclear how a “sentence which uses particular keywords or phrases such as ‘required to, should or should not’<sup>1</sup> is bound to one of a plurality of tests. The specification does not describe how the semantic meaning of the specification assertion is obtained nor how the gist of one of the plurality of tests is deduced such that the assertion can be bound to the correct test selected from a plurality of tests.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8 and 21-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8 and 25 recites “a code segment that binds each of the testable assertions to one of the plurality of tests that test the testable assertion.” The above limitation is indefinite because the specification does not particularly define binding. MPEP Section 2106 requires personnel to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). As the

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<sup>1</sup> Specification paragraph 73

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specification of the present application does not provide the means for interpreting binding in context of a code segment, examiner consulted a dictionary<sup>2</sup> which defines dynamic binding as “The term often refers to object-oriented applications that determine, during run time, which software routines to call for particular data objects.” For purposes of this Office Action, the above definition of binding will be used.

Claims 21-24 and 26-31 are rejected, at least, for being dependent from a rejected base claim.

Claims 30 and 31 recite “constructor/method/field specifications as leaves, each of the top-level, package-level, class-level and constructor/method/field specifications being identifiable as one of the nodes in the tree-like structure.” The metes and bounds of the claim language is indefinite because it is unclear how specifications can simultaneously exist at four different levels. Furthermore, the terminology constructor/method/field specifications renders the claim indefinite as it is unclear whether applicant is claiming one, two or three elements or a combination of the three elements. Still further, it is unclear what comprises a “top-level” specification.

### ***Art Rejection Precluded***

Claims 30 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The extent of indefiniteness is such that examiner is unable to provide art rejection in this Office Action.

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<sup>2</sup> Microsoft Computer Dictionary, Fifth Edition

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 8 and 21-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No 5,805,795 issued to Whitten (hereafter Whitten) in view of US Pat No 5,892,947 issued to DeLong et al (hereafter DeLong) and further in view of US Pat No 6,598,015 issued to Peterson et al (hereafter Peterson), as best examiner is able to ascertain.

**Claims 8 and 25:**

Whitten discloses:

a code segment that binds each testable assertion to one of the plurality of tests that test the testable assertion [Fig 2, 10, col 4, line 64- col 5, line 3, col 5, lines 38-52] each one of the

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tests being a computer program testing an implementation of the software product whether the software product complies with the portion of the input specification that corresponds with the testable assertion bound to the one of the tests,

a code segment that identifies each testable assertion as tested or non-tested [Fig 2, col 3, lines 35-50],

a code segment for presenting information on coverage of the input specification by tests test coverage is maximized [col 3, lines 43-47]

a code segment that associates testable assertions with statements within an input specification [col 1, line 55]

Whitten discloses the essential elements of the claimed invention as noted above but does not disclose a code segment that identifies each testable assertion as invalid. DeLong discloses a code segment that identifies each testable assertion as invalid [col 5, line 19]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Whitten to include a code segment that identifies each testable assertion as invalid as taught by DeLong for the purpose of early identification and rejection of insufficient test cases [col 5, line 20]. The skilled artisan would have been motivated to modify Whitten per the above such that a set of combinations of test conditions are used in determining whether predetermined functions are properly performed [col 4, lines 53-57].

Whitten discloses the essential elements of the claimed invention as noted above but does not disclose “a code segment that associates a context with each of the testable assertions, wherein the input specification has a multi-level tree structure having a plurality of nodes, each of the statements being contained by one of the nodes, wherein the context for each of the

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testable assertions is defined as the node containing the statement associated with the testable assertion.” Peterson discloses maintaining the context provided by the formatting code nodes within a tree structure that is extracted from a document to be translated [col 2, lines 39-43]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Whitten to include “a code segment that associates a context with each of the testable assertions, wherein the input specification has a multi-level tree structure having a plurality of nodes, each of the statements being contained by one of the nodes, wherein the context for each of the testable assertions is defined as the node containing the statement associated with the testable assertion based on the disclosure of Peterson for the purpose of making use of previously translated document [col 2, line 39-40].

**Claims 21 and 26:**

The combination of Whitten, DeLong and Peterson discloses the elements of claim 8 as noted above and furthermore, Whitten discloses wherein the information includes a percentage of the testable assertions covered by the tests [col 1, lines 44-47]

**Claims 22 and 27:**

The combination of Whitten, DeLong and Peterson discloses the elements of claim 8 as noted above and furthermore, Whitten discloses wherein the information includes a list of testable assertions tested by the tests [col 1, lines 25-30]

**Claims 23 and 28:**

The combination of Whitten, DeLong and Peterson discloses the elements of claim 8 as noted above and furthermore, Whitten discloses wherein the information includes a list of



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testable assertions not tested by the tests [maximum number of blocks are exercised based on a minimum time, col 3, lines 1-10].

**Claims 24 and 29:**

The combination of Whitten, DeLong and Peterson discloses the elements of claim 8 as noted above and furthermore, Whitten discloses a code segment identifying ones of the testable assertions affected by a change to the input specification [Fig 2, 10, col 4, line 64- col 5, line 3, col 5, lines 38-52]

***Response to Arguments***

Applicant's arguments filed 8/1/2005 have been fully considered but they are now moot based above new grounds of rejection which are necessitated by applicant's amending of the claims.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne P LeRoux whose telephone number is (571) 272-4022. The examiner can normally be reached Monday through Friday between 8:00 am and 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (571) 272-4023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Etienne LeRoux

10/17/2005

A handwritten signature in black ink, appearing to read 'Etienne LeRoux', is written over the printed name and date.